

What is claimed is:

1. A GPS/DAB and GSM hybrid antenna array comprising:
an entrainer for entraining a printed circuit board (PCB) or other electric
5 circuit boards:
a GPS/DAB ceramic patch antenna entrained on a surface of said entrainer;
a low noise amplifier (LNA) entrained on the other surface of said entrainer
opposite to said GPS/DAB ceramic patch antenna; and
an antenna for global system mobile communication (GSM) entrained on
10 said entrainer;
wherein said GSM antenna is formed into a planar thin strip type.
2. The hybrid antenna array as in claim 1, wherein said GSM antenna is
formed of a long planar thin strip conductor configured in a continuous
wave form directly disposed on said entrainer.
- 15 3. The hybrid antenna array as in claim 1, wherein said long planar thin strip
conductor configured in a continuous wave form is formed on a thin plate
by printing or other processes and after that said thin plate is attached to the
surface of said entrainer.
4. The hybrid antenna array as in claim 1 , wherein an electrically conductive
20 film is intercalated between said entrainer and said GPS/DAB ceramic
patch antenna.
5. The hybrid antenna array as in claim 2 , wherein an electrically conductive
film is intercalated between said entrainer and said GPS/DAB ceramic
patch antenna.
- 25 6. The hybrid antenna array as in claim 3 , wherein an electrically conductive

film is intercalated between said entrainer and said GPS/DAB ceramic patch antenna.

7. The hybrid antenna array as in claim 4, wherein said GSM planar antenna entrained on said entrainer is a printed dipole antenna.

5 8. The hybrid antenna array as in claim 4, wherein said GSM planar antenna entrained on said entrainer is a printed monopole antenna.

9. The hybrid antenna array as in claim 7, wherein said GSM planar antenna is split into two sections formed on two opposite surfaces of said entrainer respectively.

10 10. The hybrid antenna array as in claim 4, wherein said GSM planar antenna is a slot dipole antenna formed of two sections of L shaped slot facing against each other on a conductor film which being intercalated between said GPS/DAB ceramic patch antenna and said entrainer.

15 11. The hybrid antenna array as in claim 8, wherein said GSM planar antenna is formed on a grounded conductive film which being intercalated between said LNA and said entrainer, a breach is formed on an open slot located at the edge of said entrainer.

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